

(NM – 3) Soil Fertility Interpretation GUIDE/Form (ETc example is for Corn Silage)

Crop _____ Variety _____		Average Annual Yield _____			Depth of Soil Sample _____		Sample Date _____	
Soil Nutrient Status		Mar	Apr	May	Jun	Jul	Aug	Sep
Parameter	Result (ppm)	<div> <div>Emergence</div> <div>Rapid Growth</div> <div>Effective Full Cover</div> <div>Maturation</div> </div>						
Nitrate-N		<div> <div> Petiole/Leaf Sampling: *To evaluate actual nutrient content (sufficiency level) </div> <div> </div> <div> Factors Affecting Nutrient Supply & Availability: O.M., CEC, Soil Texture, Soil Structure, Soil Water Content, Salinity, pH, Temperature, Crop Rotations (Legumes), Crop Residues, Nutrient Carry-over </div> </div>						
Phosphorus								
Potassium								
Calcium								
Magnesium								
Sulfur								
Iron (Fe)								
Copper (Cu)								
Zinc (Zn)								
Manganese (Mn)								
Organic Matter	%							
pH								
ECe (dS/m)		ETc:	1.75"	4.32"	8.33"	10.28"	8.35"	
SAR		<div> Enter Fertilizer Inputs Type: Rate: Form: Application method: Date applied: </div>						
Sodium (Na)	ppm							
Petiole/Leaf analysis is used as a monitoring tool for determining the adequacy of the fertilization practices. Rudy Garcia 2008								

Soil Test Interpretations for N, P, K & Micronutrients:

- * A Very Low or Low classification indicates a high probability for obtaining a fertilizer response.
- * A Moderate classification indicates a fertilizer response may or may not occur.
- * A High or Very High classification indicates a fertilizer response is not likely to occur.

Required Tests:

- * The Olsen Test is used to determine the Phosphorus content
- * Potassium interpretations are based on a water extract
- * A saturated paste extract is used for determining the ECe and pH (most crops will grow satisfactorily on soils with a pH between 6.2 to 8.3)

Other:

- When the ECe (soluble salts) is less than 2 dS/m, few salinity problems occur
- The SAR evaluates potential infiltration problems. ECe, SAR & pH are used to categorize soils as saline, saline-sodic, sodic or normal (i.e., no salinity, pH or Na problems)

It is IMPORTANT to correlate Soil Fertility Test, Fertilizer Inputs & Leaf Analysis with IWM. Note: Follow NMSU fertilizer recommendations